

JP-61003149

DIALOG(R)File 351:Derwent WPI  
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WPI Acc No: 1986-050971/ 198608

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XRPX Acc No: N86-037277

Electrophotographic toner - contains a bisphenol deriv. as charge  
controlling agent

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Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 61003149	A	19860109	JP 84122053	A	19840615	198608 B
JP 92016109	B	19920323	JP 84122052	A	19840615	199216

Priority Applications (No Type Date): JP 84122052 A 19840615; JP 84122053 A  
19840615

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 61003149	A		6		
JP 92016109	B		8		

Abstract (Basic): JP 61003149 A

Toner contains cpd. of formula (I) as charge controlling agent. In  
(I), R1-4 each is H, 1-8C alkyl, allyl or halogen; and X is -S-, -SO2-  
or CR5R6, where R5 and R6 each is H or 1-8C alkyl.

Colouring agent, binder resin and (I) are kneaded in fused  
condition using heater kneader etc., cooled to solidify and ground to  
fine particles having size of 1-50 microns by jet mill, ball mill etc..  
Suitable colouring agents include C.I. Pigment Yellow 142, C.I. Solvent  
Red 179, C.I. Solvent Blue 105, C.I. Disperse Yellow 114, carbon black  
etc.. Suitable binder resins include acryl resin, polystyrene,  
styrene-methacrylate copolymer, epoxy resin, polyester resin etc..

Pref. addn. amt. of (I) is 0.5-10 pts. wt. per 100 pts.wt. of binder.

ADVANTAGE - Since (I) is colourless, hue required of toner can be  
obtd. with ease by using dye or pigment properly and (I) has no  
influence on original hue of dye or pigment. Charging capacity of (I)  
ranges from 90 to 100 micro c/g (cf. 40-50 micro c/g in case of metal  
complex of salicylic acid, and 70-80 micro c/g in case of dye of 2:1  
metal complex type) and the resulting toner can provide very clear  
image. The toner has excellent moisture resistance, does not generate  
background stain and does not cause pollution problem due to absence of  
heavy metals. (6pp Dwg.No.0/0)

Title Terms: ELECTROPHOTOGRAPHIC; TONER; CONTAIN; BISPHENOL; DERIVATIVE;  
CHARGE; CONTROL; AGENT

Derwent Class: A18; A89; E14; G08; P84; S06

International Patent Class (Additional): C07C-039/36; G03G-009/08;  
G03G-009/09

File Segment: CPI; EPI; EngPI

Manual Codes (CPI/A-N): A12-L05C2; E10-A10B; E10-E02D1; E10-E02D4; G06-G05

Manual Codes (EPI/S-X): S06-A04C

Plasdoc Codes (KS): 0231 2332 2806 2808 0304 0486 1282 1291 0306 0502

Polymer Fragment Codes (PF):

\*001\* 014 04- 055 056 074 081 143 144 226 392 394 609 658 659 688 725

\*002\* 014 034 04- 055 056 074 077 081 27& 392 394 609 658 659 725

Chemical Fragment Codes (M3):

\*01\* C316 G013 G014 G015 G017 G019 G100 H4 H402 H442 H594 H600 H602 H603  
H608 H609 H641 H642 H643 H721 H722 H723 H8 K442 M1 M121 M132 M142  
M150 M210 M211 M212 M213 M214 M215 M216 M220 M221 M222 M231 M232  
M233 M240 M280 M281 M282 M283 M311 M312 M313 M314 M315 M316 M320  
M321 M331 M333 M340 M342 M414 M510 M520 M532 M540 M781 M903 Q348  
R036